OPERATING GUIDELINES
FOR POU WATER COOLERS

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epdwa
European Point-of-use
Drinking Water Association

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1. Introduction

These Operating Guidelines have been designed to assist Suppliers, Operators and Installers of Point of Use (POU) Water Coolers to meet the declared objectives of the EPDWA:-

"To promote, develop and maintain the highest standards of Hygiene, Safety and Ethics within the European Point of Use Drinking Water Industry, to the benefit of customers. This is achieved by providing EPDWA members with information, support and training, to audit their Standards, and to represent their interests at Local, National and European levels".

2. POU Water Cooler and Filter Approvals, Standards & Markings

The EPDWA is fully committed to support Government & Agency aims to ensure safety and to improve environmental standards, both in the spirit- and to the letter of the law. It will assist members as best as possible to meet the relevant regulations and legal requirements. Non-compliance of any legislative aspect is not an option for members.

2.1 CE Marking

Water Coolers must be CE marked and the CE Mark must be prominently displayed on the Cooler. The supplier of the Water Cooler must be able to provide copies of Certification to confirm that the equipment complies with CE regulations.

2.2 RoHS Compliance

The Restriction of Hazardous Substances (RoHS) legislation came into force in July 2006. Non compliance with RoHS could result in prosecution by the RoHS Enforcement Agency. As a visible sign of meeting RoHs standards, all Water Coolers must display the RoHS logo. Furthermore, Water Cooler suppliers must be able to provide documented evidence that RoHS requirements have been met.

2.3 WEEE Marking

The Waste of Electrical and Electronic Equipment (WEEE) legislation will be enforced in the UK from July 1st 2007. In common with all other electrical/electronic equipment, WEEE requires that water coolers are recycled. This places a considerable responsibility, administrative burden and cost on the Industry. The EPDWA will assist UK members in discharging their responsibility under WEEE. Already now all new water coolers supplied into the UK must carry the wheelie bin WEEE recycling logo clearly visible on the Water Cooler (The implementation of WEEE varies in other Continental European Countries).

2.4 Water Grade Material for Water Contact Surfaces

All Water Contact Surfaces must be made of water grade material to avoid contamination of the drinking water. In the UK it must comply with 6920, parts 1 - 3.

2.5 EPDWA Requirements

The EPDWA has established a number of standards relating to POU Water Coolers and Filters, which are designed to increase operating safety and hygiene at members depots and their customers sites.

2.6 Health & Safety Policy

EPDWA members must produce a Health & Safety Policy document and issue it to all employees to confirm its H&S standards with regards to water coolers, their storage, transportation, installation, hygiene and maintenance at its depot(s) and at customer sites.

2.7 HACCP

EPDWA members must carry out a risk assessment of their cooler sanitising, installation, servicing, storage and distribution activities and taken appropriate action.

2.8 Air Filter on air vented Water Tanks

Any Water Cooler Reservoir which is air vented must have an air filtration system of 5 micron nominal rating or lower, to reduce the risk of air borne contamination.

2.9 Hot Water Label and Safety Tap

Water Coolers which also incorporates a hot water function must also have

a) an appropriate Hot Water Warning Label attached near the hot water tap
b) a hot water “safety” dispensing tap/mechanism, which prevents unintentional delivery

2.10 POU Filter Standards

Filters must be fit for their intended purpose and be of a size appropriate to deal with 6 months of usage.

Filters must be certificated as being made of materials suitable for water contact use by WRAS (essential for UK) NSF, EPA/FDA KIWA or other EU /National standards.

In addition all filters must either have received certification to NSF standard 53 for cyst removal OR have documented proof that they are of 1 micron nominal performance with 95% removal of 1 micron particles.

Members shall not sell filters that are inappropriate for the location.

3. Pre-Installation Customer Site Survey

The EPDWA offers to members a generic Site Survey Document which is designed to:-

a) confirm the availability of accessible Potable Drinking Water
b) identify the suitability of the site for positioning the POU Water Cooler
c) establish if the site requires special considerations for installation (i.e. Schools, Hospitals, Hospices and Care Homes)

alert to the need of a Risk Assessment prior to installation the Site Survey can either be completed by a visiting salesman, an installer or sanitiser. It can also be done via a telephone check with the customer.

4. Pre-Commissioning Sanitising and Electrical Checks of POU Coolers

All water coolers must be sanitised prior to commissioning. Re-Sited equipment must also be PAT tested.

The Pre-Commissioning sanitisation at the member's depot must be performed in an area appropriate for the task and in the UK meet the requirements of The Food Hygiene Regulations 2005 for England, Scotland, Wales and Northern Ireland (different Regulations will apply in other Continental European Countries). Sanitising staff must be Hygiene trained see Training 5.2.2 and sanitisers must conform to strict Personal Hygiene etc standards see 5.2.1 Personal Hygiene and Appearance of the Installer.

4.1 Pre-Commissioning Sanitising

The term 'Sanitisation' as used in the Water Cooler Industry defines the process which disinfects and cleans all internal water paths to avoid microbiological contamination.

All coolers must be sanitised, prior to commissioning, either at the operators/installers depot or at the customers site. Sanitising at the depot must be carried out by a trained sanitiser, using an approved sanitising technique (see Ongoing Sanitising, Filter Exchange & Maintenance 6) and be conduced in an appropriate area (see Pre-Commissioning Sanitising and Electrical Checks of POU Coolers 4).

4.2 PAT Testing

Water coolers that have been previously used and are older than 1 year must be PAT Tested for electrical safety prior to installation. In keeping with the UK requirements defined by The Electricity at Work Regulation 1990 the PAT test result must be recorded in a separate book by the engineer/installer and a PAT test label must be attached to the water cooler (Regulations may vary in other European Countries).

5. POU Water Cooler Installation

The correct installation of a POU water cooler to a potable water supply is absolutely critical to its safe and hygienic performance.

5.1 Transportation of the water cooler

Vehicles must be suitable to transport water coolers safely and hygienically, without posing a risk of contamination during transport.

Water coolers should at all times be properly packaged/wrapped and should be handled carefully so that they are kept clean and the risk of contamination is minimised.

5.2 The POU Water Cooler Installer

The installer should have the customer's pre-installation site survey enabling them to correctly prepared for the installation and be aware of any special requirements. A brief meeting with the customer's site contact is recommended to confirm the details of the equipment placement and site issues.

5.2.1 Personal Hygiene and Appearance of the Installer

The installer represents the company on site and the industry as a whole. Care must be taken that their appearance matches that of a professional operator.

a) On site smoking-, eating-, drinking ban
b) Wearing of clean protective clothing
c) Wearing of headwear
d) Wearing of "one time" gloves
e) No wearing of any jewellery, other than a wedding band and wrist watch
f) A clean and tidy van
g) A well organised and tidy tool box

Any illness must be reported to the supervisor. If there is any risk to hygiene then the installation should be discontinued. Open cuts to the skin must be covered with a blue plaster.

5.2.2 Training

The Installer must have participated and passed the following EPDWA training courses within 6 months of joining the member company:-

a) EPDWA Hygiene course (valid for 3 years)
b) EPDWA Practical Installation Course (valid for life)

5.2.3 EPDWA Hygiene Awareness Course

The hygiene awareness course is a half day course which provides detailed information on hygiene. All water cooler sanitisers, engineers and operations staff must either have attended and passed the course within 6 months of joining the organisation or have passed the course previously within a 3 year period.

It is further recommended that all sales and customer service personnel attend this course. The EPDWA hygiene course requires re-sitting every three years.

5.2.4 EPDWA Practical Installation Training

The installation training is a full one day course operated by WRc-NSF on behalf of the EPDWA. The course has been created to lead installers to a recognised Industry Accreditation as POU water cooler installer. All POU water cooler installers must have passed this course within six months of joining the member company. Installers should have some practical installation experience before attending the course. Once an installer has passed this course their certificate has a life time validation.

5.3 Positioning of the POU Water Cooler

Water coolers should not be installed near high temperatures, such as radiators, ovens or in direct sunlight. They should be at least 10cm off the wall to allow for air circulation.

Specific EPDWA Guidelines exist for positioning water coolers in Schools, Hospitals, Hospices and Care Homes.

5.3.1 Identifying and Connecting to a Wholesome Water Supply

POU water coolers must only be connected to a designated wholesome water supply (as defined by EU Standard 98/83/EC – quality of water intended for human consumption and for the UK the "Water Supply - Water Fittings- Regulations 1999" and "Scottish Water Byelaws 2004").

Connection to a Cistern (Water Tank) is not permitted, unless they have been specifically designed, approved and maintained as a wholesome water supply. The connection must otherwise be made to a rising main. If in any doubt, the installer must seek clarification from the customer's facilities manager/site supervisor to identify the nearest rising main. The EPDWA Practical Installation Course will cover this aspect.

5.4 WRAS (Water Regulations Advisory Scheme, UK only)

The primary objective of WRAS is to protect the mains water supply from outside contamination when a connection is made to the Mains. Similar Regulations will exist in most other European Countries. All installation fittings should conform to the water regulations. Members are advised to use WRAS approved fittings to ensure conformity.

5.4.1 Connection to the Mains Water Supply

The connection to the mains supply and the water contact surfaces inside the POU cooler must be WRAS approved to ensure that there is no risk of tainting, discolouring or contamination of the mains water supply. There must also be a dedicated isolating valve or 'service valve' for each cooler at the point of connection to the water mains or at the inlet to the POU water cooler.

5.4.2 Non Return Check Valve

A WRAS Approved Non Return Check Valve must be installed at the Point of connection to the Mains Water Supply. This is to avoid any contamination of the Mains Supply through back pressure (back- flushing) or siphoning of water from the Water Cooler.

A Double Check Valve is required for carbonated or coolers using a flavouring system.

5.4.3 Anti Leak Device

To avoid major leaks it is recommended that an Anti Leak Device or water block is fitting as close as possible to the new connection. It is also recommended to secure all push fit connections with locking clips.

5.4.4 Pressure Reducing Valve

To avoid damage caused by pressure hammering it is recommended that a pressure limiting valve be fitted close to the mains water connection (set to between 2 to 3 bar) where the water pressure exceeds 3 bar at any time during the day or night, during weekdays or holidays. Particular care must be taken if there is a risk of pressure spikes, due to booster pumps etc. A ‘safe approach’ of always installing a Pressure Reducing Valve, is recommended, unless the water pressure is extremely low and would further deteriorate by installing such a Valve

5.4.5 Fittings and Pipe Work

All Fittings and Pipe Work must be of food grade material and comply to the UK standard BS6700. Pipe work runs must avoid light fittings and electric trunking/cables and gas piping. Similar Standards will exist in other European Countries. The Micro-bore (1/4”) Pipe work should be clearly identifiable as a water supply. Pipe work should be kept as short as possible and micro bore runs should not exceed 20 metres from the potable water supply to the POU water cooler. If a cooler is removed, all “dead legs” must be isolated or preferably be removed.

5.5 Record Keeping and Customer Sign-Off of a POU Installations

The EPDWA offers its members a generic Installation Document for POU Coolers, which is designed to

a) confirm the correct installation of the POU Water Cooler
b) confirm that all installation standards and guidelines have been met
c) obtain customer sign off to accept the POU Water Cooler Installation

EPDWA members must maintain a water cooler database which holds all relevant technical and installation details, a well as full details on sanitisation and filter exchange. Such information must be made available to an independent auditor. A copy of the completed and signed off installation document should to be made available to the customer.

6. Ongoing Sanitising, Filter Exchange & Maintenance

All Water Coolers must be regularly sanitised and have their filters exchanged. This work must be carried out by a trained Sanitiser see 5.2.2 Training, and in accordance to the guidelines set out in section 5.2.1Personal Hygiene and Appearance of the Installer.

If that work is carried out on-site, this must be recorded and made available for inspection by an independent auditor. Care must be taken when sanitising on site that the water cooler is clearly and visibly labelled “DO NOT USE’ to avoid customers drawing off water during the sanitisation process. After chemical sanitisation the water cooler must be flushed though to remove any residue of the chemicals used. Before leaving the customers’ site the sanitiser will test the water to ensure that there are no chemical residues left. If sanitising is carried out at a member’s depot, the work falls under the Pre-Commissioning Guidelines mentioned under section 4.

6.1 Sanitising (and Sanitary Maintenance) Frequency

The sanitising of a POU water cooler needs to be carried out at least once every 26 weeks, i.e. two times per year +/- 10%.More frequent sanitisation is required for

a) Schools: Once per School Term, and no sooner than 10 days prior to the beginning of term.
b) Hospitals, Hospices and Care Homes: In high risk areas quarterly sanitisation is recommended, and weekly sanitary maintenance should be carried out by care staff.

A less frequent sanitising regime than the standard one time per 26 weeks +/-10% months can only be adopted if technological advancements in water cooler construction and accessories ensure a higher level of hygiene and that this has been confirmed by an independent microbiological assessment which was approved by the EPDWA. In such a case full scale sanitising must be replaced by sanitary maintenance (see 6.4.)

6.2 Sanitary Maintenance

Sanitary Maintenance describes a process of cleaning and sanitising of dispensing taps and external surfaces, without working on the internal water surfaces of the cooler.

6.3 Approved Sanitising Methods

The Sanitising Method must be fit for purpose and any chemicals used must be suitable for food and water contact use. In the UK, a COSHH risk assessment is required. Similar regulations will exist in other European Countries. For water coolers with exchangeable/disposable water contact surfaces, the requirement for sanitisation is satisfied if these are exchanged every 26 weeks +/- 10%.

6.4 Technological Advances in Sanitising

The EPDWA recognises that technological advances in Sanitising will bring changes. At the same time the Association is determined to ensure that any such changes will not compromise hygiene. It therefore reserves the right to refuse acceptance of new technology, unless it can be satisfied through vigorous independent tests that hygiene standards are not being compromised.

6.5 Descaling

The cold water tank, but more often the hot water tank in coolers which incorporate a water heater will need to be descaled on a regularly basis. Descaling will generally be undertaken by the Sanitiser and the same guidelines concerning Personal Hygiene (see 6.2.) apply.

Use a commercially available De-Scale, and apply according to the Water Cooler Manufacturers instructions. Descaling agents generally consist of an acid solution/compound. It is therefore recommended to wear rubber gloves, goggles and protective clothing. If the descaling is done at the customer's premises, it is imperative that the Cooler is clearly and visibly labelled "DO NOT USE' to avoid customers attempting to draw water during the descaling process.

It is recommended that the sanitiser/descaler does not leave the equipment during descaling process and that any descaler is kept secure whilst onsite. After descaling the water cooler must be thoroughly flushed through with copious amounts of water to remove any traces of the chemical. Before leaving the site, the sanitiser/descaler must test the water to insure that all traces of the chemical have been removed. Descaling with an acid solution, also sanitises and descales water contact surfaces and therefore do not require further sanitising. Descaling must be recorded as described under Record Keeping. (see 5.9.) and ongoing Sanitisations.. (see 6.0).

6.6 Filter Change

The EPDWA guidelines state that all POU filters are changed once every 6 months +/- 10%, irrespective of some manufacturers claiming a longer filter life. This is to avoid the build up of bacteria inside the filter. The filter exchange must be recorded as described under Record keeping (see 5.9.) and Ongoing Sanitisations.. (see 6.0.).

6.7 Record Keeping and Customer Sign-Off of Sanitising, Filter Exchange and Maintenance

The EPDWA offers its members a generic on-site sanitising, filter exchange and maintenance document for POU coolers, which confirms work dates and allows for customer sign off.

6.8 Minimum threshold level for regular Sanitising

A minimum threshold of at least 80% of any EPDWA members cooler installed base (rented, loaned or sold) must be part of the members regular sanitising programme. If an end user refuses to join the sanitising program, he must be offered an opt out document, which identifies his/her responsibilities for self sanitising and maintenance. A generic form is available from the EPDWA.

7. Guidelines for Schools, Hospitals, Hospices and Care Homes

These Guidelines, which demand higher standards of Hygiene and Installation, are available to EPDWA members.

8. Water Cooler Storage and Distribution Depot(s)

Members water cooler storage, sanitisation and distribution facilities are subject to the annual EPDWA audit. The EPDWA has elected to treat POU water as food. Consequently, all UK facilities must meet Food Hygiene Regulations 2005 (for England, Wales, Scotland and Northern Ireland), or similar Regulations in other European Countries.

9. EPDWA Mandatory Audit

Members are subject to an annual audit. The audit will be carried out by an EPDWA appointed independent auditor. The audit document is available to members. The pass mark is 85% with 100% compliance of all control points. Any deficiencies identified by the auditor must be corrected within an agreed time scale. If a member fails to correct such deficiencies, he will automatically be suspended from EPDWA membership. The

audit results remain confidential between the auditor, the customer and the EPDWA secretariat.

To avoid double auditing, the EPDWA have decided to accept BWCA Audits from members of both trade organisations.

10. Emergency Notice

In the instance that a water company issue an “Emergency Notice” regarding the quality of the Potable Supply that would effect members installed water coolers, the following steps must be taken

a) a “crisis manager” needs to be appointed
b) immediately inform all customers within the affected area to stop using the water cooler(s) with immediate effect
c) disconnect the water cooler(s) from the main supply and drain the water
d) place an ‘OUT OF SERVICE’ notice on the cooler
e) Once the ‘Emergency Notice’ has been withdrawn by the water company, the ‘crisis manager’ should ensure that all affected water coolers are sanitised and the filter exchanged before being returned to service.

11. Continental European Dimension

Laws and Regulations vary in different European Countries. Continental European Members of the EPDWA need to apply these different Laws/ Regulations. This document has attempted to identify the sections which may be subject to those differentiations.

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